

REMARKS

The following remarks are made in response to the Non-Final Office Action mailed December 28, 2007. Claims 28-35 have been withdrawn from consideration. Claims 1-10 had been cancelled in the Preliminary Amendment filed December 23, 2005. Claims 11-27 were rejected. With this Response, claim 16 has been amended. Claims 36-39 have been added. Claims 11-27 and 36-39 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 102

Claim 11 was rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Baker et al. (US 5,869,896). Applicants respectfully traverse this rejection.

The Applicants submit the Baker fails to teach or suggest the limitations recited by independent claim 11 including **a wiring block with contact pads on its outer sides and with lines in its volume, the lines electrically connecting the contact pads on the outer sides to one another according to a circuit layout, the first component and the second component being arranged on different non-opposite outer sides of the wiring block and the connections being connected to the contact pads.**

Baker discloses a “monolithic electronic module” comprising of multiple semiconductor chips laminated together into a unified stack. Col. 3, ll 26-29. Semiconductor chips and substrates that include “transfer metal layer for facilitating electrical connection,” the transfer metal layer further including transfer metal leads, are stack and aligned with the transfer metal leads extending. Col. 3, ll 36-42. The stacked chips are wired to each other on the side surface using thin-film metallization to electronically connect the metal leads. Col. 3, ll 44-47.

Further, Figures 13 and 14 of Baker disclose wire 25 as a wire *exterior* to the stack of chips. Wire 25 extends between two contact pads, with one contact pad located on the sensor array and the other pad located on the stack of chips or sensor substrate, respectively. Electrical connection is provided through the wire.

The Office Action appears to equate the wire 25 of Baker with the wiring block recited by claim 11 and refers to specification column 3, lines 36-49 and Figures 13 and 14 in support of

this. Applicants submit that wire 25 of Baker is not a wiring block for several reasons. As shown in both Figures 13 and 14, as well as stated in the text, reference number 25 is a wire. As the figures show, wires 25 are exterior wires connecting to two contact pads, one pad on the sensor array and another pad on the stack. This is unlike the claimed device, which includes a wiring block configured three-dimensionally, having running lines within the volume of the block. Baker clearly does not teach a wiring block containing wiring lines within its volume – the wires illustrated in Figure 13 of Baker, for example, are external to the only “block” structure illustrated. In this manner, Baker clearly does not disclose a wiring block.

In view of the above, Applicants submit that the above rejection of independent claim 11 under 35 U.S.C. §102(b) should be withdrawn. Accordingly, allowance of claim 11 is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

Claims 12-15 and 26-27 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Baker et al. (US 5,869,896) in view of Dourousseau (US 6,708,051 B1).

Claims 12-15 ultimately depend from claim 11, and are believed to be allowable for at least the same reasons noted above. Therefore, allowance of dependent claims 12-15 is respectfully requested.

Item 5 of the Office Action appears to also reject claim 25. Therefore, claims 25-27 are addressed here. Claims 25-27 all ultimately depend from claim 16 and are believed to be allowable for the same reasons as independent claim 16 discussed below.

Item 5 of the Office Action item 5 also appears to reject independent claim 16. Claim 16 has been amended to correct a typographical error. For similar reasons as discussed above with reference to independent claim 11, Baker also fails to teach or suggest the limitations recited by independent claim 16. Amended claim 16 contains many of the limitations of claim 11 as well as including a limitation of the wiring block **wherein the wiring block includes a plastic volume through which the lines extend, and includes at least six outer sides configured for population with electronic devices or components, such that line routing through the wiring block is configurable for three-dimensional wiring between contact pads.**

As discussed above with regards to claim 11, Baker does not disclose a wiring block. Combining Baker with Rudin does not correct this, for neither discloses a wiring block.

The Office Action goes on to state that Baker does not disclose carbonized plastic, but states that Rudin does disclose lines comprised of carbonized plastic, citing Col. 1, ll 21-36. However, the cited portion of Rudin does not appear to contain a reference to carbonized plastic, instead merely mentioning “cermet, carbon film, hot-molded carbon, thin film metal and conductive plastic.” In any event, claim 16 does not contain any limitations with regards to carbonized plastic, so the disclosure of Rudin appears irrelevant to claim 16.

Additionally, it is well accepted that, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Without a motivation to combine, a rejection on a *prima facie* case is not proper. See MPEP §2143.

The Office Action states that the motivation for combining the teachings of Baker and Rudin is “to provide energy supply line guiding chain that comprises flexible interconnected chain (interconnected by a cross bar) between the components.” Baker teaches advantages of stacking identical chips and placing the wiring lines on the side faces of the chips, so the skilled person would have no motivation to modify the arrangement such that the wiring lines are arranged within the volume, even assuming the lines were carbonized plastic in Rudin.

Therefore, by combining Baker and Rudin, not only are all of the elements of the present invention not contained in the combination, there is also no motivation to combine the two references.

In view of the above, Applicants submit that the above rejection of independent claim 16 under 35 U.S.C. §103(a) should be withdrawn. Dependent claims 12-15 and 25-27 further define patentably distinct independent claim 16. Accordingly, Applicants believe that these claims are also allowable over the cited reference. Allowance of claim 12-16 and 25-27 is respectfully requested.

Claim 17 was rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Baker et al. (US 5,869,896) in view of Agrawal et al. (US 5,644,496).

Claim 17 ultimately depends from claim 16, which is believed to be allowable for the above noted reasons. Therefore, claim 17 is believed to be allowable for at least those reasons.

Claims 18-24 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Baker et al. (US 5,869,896) in view of Andoh et al. (US 5,095,357).

Claims 18-24 all ultimately depend from claim 16, which is believed to be allowable for the reasons noted above. Therefore, claims 18-24 are believed to be allowable for at least those reasons.

In view of the above, Applicants submit that the above rejection of claims 17-24 under 35 U.S.C. §103(a) should be withdrawn. Dependent claims 17-24 further define patentably distinct independent claim 16. Accordingly, Applicants believe that these claims are also allowable over the cited reference. Allowance of claim 17-24 is respectfully requested.

New Claims

Applicants have added dependent claims 36-39 to further define patentably distinct independent claim 11. Applicants believe claims 36-39 are in condition for allowance. Allowance of these claims is respectfully requested.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 11-27 and 36-39 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 11-27 and 36-39 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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